

AMENDMENTS TO THE CLAIMS

1 1-15. (canceled)

1 16. (Currently Amended) A mobile communications terminal comprising:

2 an electronic circuit configured to receive a wireless communications signal
3 carrying signal channels with transmitted information, the electronic circuit comprising signal
4 processing units adapted to provide at least one of:

5 a signal representing gain from an automatic gain control (AGC signal);

6 a transmission power control command signal (TPC command signal);

7 an interference estimate signal; and

8 a signal representing strength of the wireless communications signal; and

9 ~~a signal representing a signal-to-interference ratio;~~

10 an interference classifier adapted to classify a type of interference affecting
11 communications quality by evaluating time-domain behavior of at least one of the AGC signal,
12 the TPC command signal, the interference estimate signal, and the signal representing the
13 strength of the wireless communications signal, ~~and the signal representing the signal-to-~~
14 ~~interference ratio;~~ and

15 wherein the type of interference is classified in one of at least two predetermined
16 classes of interference.

1 17. (Previously presented) The mobile communications terminal of claim 16,

2 wherein:

3 a first class of interference includes inter-cell interference; and

4 a second class of interference includes intra-cell interference.

1 18. (Previously presented) The mobile communications terminal of claim 16, further
2 comprising:

3 means for processing the communication signal in a first of at least two ways; and
4 wherein the first way is selected dependent upon a classified type interference.

1 19. (Previously presented) The mobile communications terminal of claim 16, further
2 comprising filter means for processing the wireless communication signal via a set of filter
3 coefficients selected dependent upon of a classified type of interference.

1 20. (Previously presented) The mobile communications terminal of claim 19,
2 wherein:

3 the filter means comprises a low-pass filter; and
4 the low-pass filter has a relatively wide band-width when interference is
5 classified to be intra-cell interference and a relatively narrow band-width when interference is
6 classified to be inter-cell interference.

1 21. (Currently Amended) In a mobile communications terminal adapted for use in a
2 cellular communications system, a method comprising the steps of:

3 receiving a wireless communications signal carrying signal channels;
4 extracting the signal channels;
5 providing at least one of:
6 a signal representing gain from an automatic gain control (AGC signal);
7 a transmission-power-control command signal (TPC command signal);
8 an interference estimate signal; and

9 a signal representing a strength of the wireless communications signal;
10 and
11 ~~a signal representing a signal-to-interference ratio;~~
12 classifying a type of interference affecting communications quality by evaluating
13 a time-domain behavior of at least one of the AGC signal, the TPC command signal, the
14 interference estimate signal, and the signal representing the strength of the wireless
15 communications signal, ~~and the signal representing the signal-to-interference ratio;~~ and
16 wherein the type of interference is classified in one of at least two predetermined
17 classes of interference.

1 22. (Previously presented) The method of claim 21, wherein a first class of
2 interference includes inter-cell interference and a second class includes intra-cell interference.

1 23. (Previously presented) The method of claim 21, further comprising:
2 processing the wireless communications signal in a first of at least two ways; and
3 wherein the first way is selected from the at least two ways dependent upon a
4 classified type of interference.

1 24. (Previously presented) The method of claim 21, further comprising:
2 filtering the wireless communications signal with a low-pass filter; and
3 wherein the filter has a relatively high band-width when interference is classified
4 to be intra-cell interference and has a relatively low band-width when interference is' classified
5 inter-cell interference.

1 25. (Currently Amended) A mobile communications terminal comprising:

2 an electronic circuit configured to receive a wireless communications signal
3 carrying signal channels with transmitted information, the electronic circuit comprising signal
4 processing units adapted to provide at least one signal for at least one of adjusting, verifying, and
5 demodulating the wireless communication signal;
6 an interference classifier adapted to receive the at least one signal and to classify
7 a type of interference affecting communications quality by evaluating time-domain behavior of
8 at least one of the at least one signal; and
9 wherein the type of interference is classified in one of at least two predetermined
10 classes of interference.

1 26. (Currently Amended) The mobile communications terminal of claim 25, wherein
2 the at least one signal comprises at least one of:
3 a signal representing gain from an automatic gain control (AGC signal);
4 a transmission power control command signal (TPC command signal);
5 an interference estimate signal; and
6 a signal representing strength of the wireless communications signal; ~~and~~
7 ~~a signal representing a signal-to-interference ratio.~~

1 27. (Previously presented) In a mobile communications terminal adapted for use in a
2 cellular communications system, a method comprising the steps of:
3 receiving a wireless communications signal carrying signal channels;
4 extracting the signal channels;
5 providing at least one signal for at least one of adjusting, verifying, and
6 demodulating the wireless communication signal;

7 classifying a type of interference affecting communications quality by evaluating
8 a time-domain behavior of at least one of the at least one signal; and
9 wherein the type of interference is classified in one of at least two predetermined
10 classes of interference.

1 28. (Currently Amended) The method of claim 27, wherein the at least one signal
2 comprises at least one of:
3 a signal representing gain from an automatic gain control (AGC signal);
4 a transmission-power-control command signal (TPC command signal);
5 an interference estimate signal; and
6 a signal representing a strength of the wireless communications signal; ~~and~~
7 ~~a signal representing a signal-to-interference ratio.~~